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#### DRAFT TECHNICAL MEMORANDUM

**TO:** Lynda Deschambault, U.S. EPA

**FROM:** Mike Johnson, P.E.

**SUBJECT:** December 2, 2016 - Field Observations

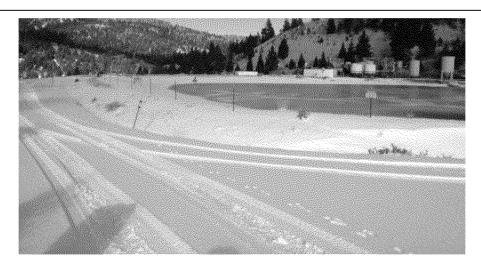
**DATE:** December 6, 2016

#### Introduction

This Technical Memorandum has been prepared by Copper Environmental Consulting (CEC) to summarize field observations conducted on December 2, 2016. Field observations were conducted to evaluate the capacity of the Storage Ponds and observe Leviat han Creek just downstream of the beaver dam / beaver pond complex for indications of beaver dam failure.

### **Ponds Storage Capacity**

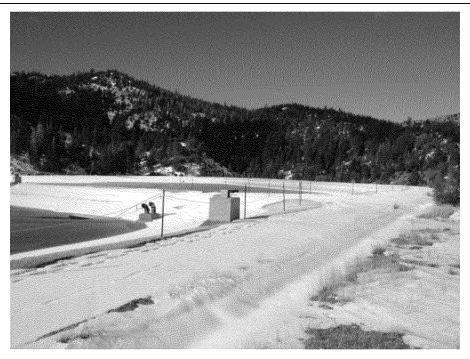
The pond water levels in Pond 1, Pond 2S, Pond 2N, Pond 3, and Pond 4 were all well below the overflow structures as seen in the Photographs 1 through 5.



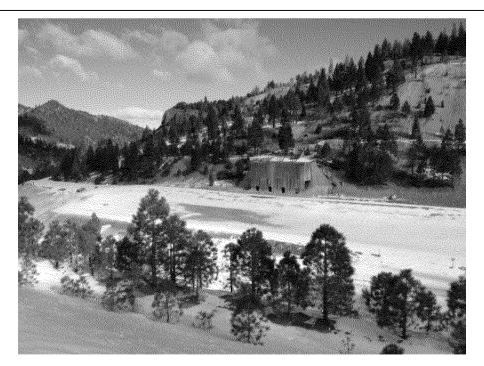
Photograph 1: Pond 1



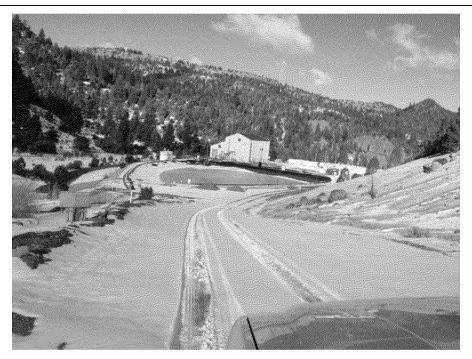
Photograph 2: Pond 2S



Photograph 3: Pond 2N



Photograph 4: Pond 3



Photograph 5: Pond 4

## **Beaver Dam Failure**

Field observations of the Leviathan Creek culvert downstream of the beaver dam / beaver pond complex were conducted to determine if there was indication of beaver dam failure. Field staff did not observe any debris restricting flow or any indication of beaver dam failure as seen in Photographs 6 and 7.



Photograph 6: Leviathan Creek Culvert Looking Downstream



Photograph 7: Outfall of Leviathan Creek Culvert

# **Conclusions**

Field observation conducted during the December 2, 2016 site visit indicated that adequate pond storage is available and that there was no indication of restriction of Leviathan Creek Culvert.